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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,715	04/18/2001	Igor Bragin	LMPY-12310	8806

7590 12/23/2003  
STALLMAN & POLLOCK, LLP  
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121 SPEAR STREET, SUITE 290  
SAN FRANCISCO, CA 94105

EXAMINER

NGUYEN, TUAN N

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/838,715

Applicant(s)

BRAGIN ET AL.

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-12, 15-17, 19, 21-22, 24, 39-43, 46-47, 52-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-79-12, 15-17, 19, 21-22, 24, 39-43, 46-47, 52-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Response to Amendment*

1. In respond to applicant's RCE amendment filed September 29, 2003, claims 1-7, 9-12, 15-17, 19, 21-22, 24, 39-43, 46-47, 52-60 are pending.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
3. Claims 1-4, 6, 9-12, 15, 16, 19, 21, 24, 39-43 46, 47, 52, 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 5181217).

With respect to claims 1, 6, 9, 19, 24, 46, 52, 57 Sato et al. ('217) discloses a laser oscillator circuit for a pulsed gas laser (ABSTRACT) (Col 1, 7-8) and shows in figures (Figs 1, 6, 8, 10, 12-30) a high pressure laser gas having a discharge circuit for a pulsed gas laser system, comprising: a pair of electrode (F 1: 3,4), a capacitor and a load in series and coupled to a first

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electrode, such that the load is disposed between the capacitor and the first electrode ( F25: 11, 13, 3); a high voltage pulsed generator coupled to said capacitor, wherein the capacitor store the charge and then apply the charge to the first electrode, wherein the load operate to dissipate energy transmitted through it as the result of a discharge (Col 19:49-61; Col 20:33-55), and connected to ground. The claim 52, further requires the capacitance and the load are located out of laser tube and pulse compression circuit coupled to capacitor and providing voltage to capacitor. (Fig 25: 1 laser housing, 6, 11, 7, 12) shows the elements outside the laser tube and power supply circuit connect to capacitor. (see respond to argument). Since claims 46 recite the same or identical elements/limitations it is inherent to use Sato et al. (US 5181217) to recite the method of providing a discharge circuit for a pulsed gas laser system, product by process.

With respect to claim 11, 15, 16, 21, 39, 40,41, and 47 the claim requires a peak capacitor and a resistor in series, where the resistor disposed between the first electrode and the capacitor, and a ground terminal coupled to said peaking and second electrode of said pair of discharge electrodes. PRIOR ART (figure 25: 11, 13, 3) shows the capacitor and load connect in series, while the (Fig 27 shows the resistor, inductor load use for controlling voltage and/or current to the discharge gas laser. Figure 25 also shows a ground terminal coupled to said peaking capacitor and a second electrode of said pair of discharge electrodes (Fig 25: 4). It is within one skill of the art to provide PRIOR ART to Sato '217 to have resistor load between peak capacitor and discharge circuit, to control the amount of voltage drop or current to the discharge chamber. The claim 21 further require a second loop having a second peak capacitance, and a resistor in series coupled between the first electrode and the ground terminal. PRIOR ART (figure 25: 6) shows the second loop having 2<sup>nd</sup> peak capacitor. Since the elements of the 2<sup>nd</sup> loop is similar to

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the 1<sup>st</sup> loop, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. V. Bemis Co.*, 193 USPQ 8. Or It has been held that omission of an element and its function in a combination where the remaining element perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184. Furthermore the claim 39, similar to claims 16 & 21, further requires wherein the peaking capacitor includes a plurality of capacitors connected to each other in parallel. (Fig 25: 6,9) shows a plurality of capacitor connected to each other in parallel.

With respect to claims 2, 10, 12, 42, 43, 54, requires the load includes a resistor, Figure 27 PRIOR ART shows the load made up either of resistor or inductor, and Fig 25 shows the variable inductor( Fig 25: 13). Column 19-20 disclose the capacitor is a peaking capacitor and the load having an active load. It has been held that omission of an element and its function in a combination where the remaining element perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

With respect to claims 3, 4, 55, 56, the claims further require that the resistor has a value comparable to a wave impedance of a gas discharge electrical loop. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ (CCPA 1980).

4. Claims 5, 7, 17, 22, 53, 58, 59, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 5181217) in view of Myers et al. (US 6128323).

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With respect to claims 5, 7, 17, 22, 53, 58, 59, 60 even though Sato '217 did not explicitly disclose the cooling system or fans for circulation. It is well known in the art the excimer gas laser requires cooling system to keep the system operate in a stable condition. Myers '323 shows in figure 8a (LASER CHAMBER: gas circulation fan) shows a cooling unit cooling the laser chamber or the load comprising the resistor, capacitor and electrodes and an encapsulated volume with circulating oil (Col 3: 20-25, Col 15: 10-15). Rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. or the mere duplication of the essential parts, in this case to keep system cooler or providing a additional backup fan, having a second fans involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

#### *Citation of Pertinent References*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is cited primarily to show the product of the instant invention.

Bouvwman et al. (US 6069 454) shows (F1: Rstab) the stabilizer resistor circuit for a discharge lamp.

Nakatani (US 5267253) shows in (F 2, 4a-4c, 10, 12, 13) capacitor and load in series of parallel.

Zucker et al. (US 5394415) shows in (F 1) a stabilizing circuit having capacitor and load/resistor in series.

Wakata et al. (US005305338A), shows in (F 22,23, 28, 80, **82-90**) a stabilizing circuit having capacitor and load/resistor in series or parallel loops.

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Muller-Horsche (US005247531A), Nakatani (US005267253A), Zucker et al. (US005394415A), Bragin et al. (US006466599B1), Wakata et al. (US005305338A), Brewer et al. (US005968080A), Oliver et al. (US006442181B1), Partlo et al. (US005914974A), Myers et al. (US006128323A), Hongu et al. (US 5777867), Partlo et al. (US005936988A), Ohmi et al. (US006282221B1), Matsunaga et al. (US006400741B1), Nakatani et al. (US005305339A), Rothe (US 4975921), Muller-Horsche (US005247531A), Klopotek (US 4797888), Bernitz et al. (US005343125A), Robbins (US 4201949), Fahlen et al. (US 445194), Taylor et al. (US 5309462), Eden et al. (US 4606034), Minamitani et al. (US 5708676), Basting et al. (US006005880A), Yoshida et al. (US006389049B2), Chung et al. (US005147995A) disclose excimer laser oscillation apparatus having a pair of electrodes with capacitance and/or a load to the electrode to store charge, where a load configure to dissipate energy as result of discharge in the gas discharge area.

### **Response to Argument**

6. Applicant's arguments filed on September 29, 2003 have been fully considered but they are not persuasive.

With respect to argument on page 9 "Figure 17, element 35 does not appear to be in series between an electrode and the capacitor as recited in claim 1". The Figure 17, elements 35 and 36 shows "a capacitor and a load in series and coupled to a first electrode of said pair of electrodes such that the load is disposed between the capacitor and the first electrode" according to claim 1 and other independent claims. There is no requirement what the load specificity should be. The claims further required that "the load operates to dissipate energy transmitted through it transmitted through it as a result of a discharge in the gas discharge area". As pointed

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out by the Applicant, Sato 19:49-61, 20:33-55 disclosed “ large quantity of energy stored in the sustainer capacitor 35 is injected into the discharge through the magnetic isolator 36, thus exciting the laser gas and generating a large laser energy”, “at the same time, making the magnetic isolator 36 saturate, a sudden transfer of the charge from the sustainer capacitor 35 to the spiker capacitor 33 occurs”. It is known that inductor, magnetic isolator, or any type of loads when have a current, voltage or energy through it, especially in this case making the load saturate, there will be energy transmitted – either in the form of current, voltage or heat.

With respect to figure 27: elements 6,9,14,15 or any figures 25,27,28, 30 intend to point out the “PRIOR ART” different arrangement of loads and capacitors to provide a specific voltage and/or current control load providing to the discharge chamber. The fact that the function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

The argument is similar for independent claims 16, 21, 39, 46, and 52.

### ***Communication Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756 or (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098 or (571) 272-1941. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.



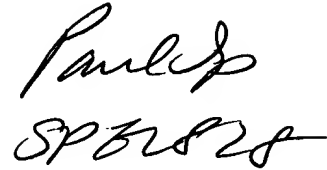
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen

A handwritten signature in cursive script, appearing to read "Tuan N. Nguyen".A handwritten signature in cursive script, appearing to read "Paul Spence".